

UNITED STATES PATENT OFFICE

In Re Application of:	§ Confirmation Number:
Yossi Kaplan	§ 8803
Serial No.:	§ Group Art Unit:
10/523,149	§ 2617
Filed:	§ Examiner:
January 24, 2005	§ AJIBADE-AKONAI, OLUMIDE
Title: A METHOD FOR MEASURING ROAD TRAFFIC LOAD BASED ON ANALYZING CELLULAR COMMUNICATIONS	§ Atty. Docket Number: § 11001.1020 § §

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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To the Office:

In response to the Final Office Action mailed September 11, 2008, the Applicant respectfully requests a panel review pursuant to the Pre-Appeal Brief Conference Pilot Program. 1296 Off. Gaz. Pat. Off. 67 (12 July 2005, extended 10 January 2006). A Notice of Appeal is filed herewith. This Request is filed within five months of the mailing date of the Final Office Action and concurrently with a Notice of Appeal, and thus is believed to be filed timely. The Applicant believes that pre-appeal review is warranted because the rejections of record are clearly improper and factually deficient.

It is believed that extensions of time or fees for net addition of claims are not required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required for such petitions (including fees for net addition of claims) are hereby authorized to be charged to the attorney's Deposit Account No. 50-3479.

Status of the Claims

Twenty six (26) claims are pending in the application arranged in three claim sets with the independent claims being claims 41, 53 and 63. Claims 42-52 depend either directly or indirectly from claim 41. Claims 54 and 56-62 depend either directly or indirectly from claim 53. Claims 64-67 depend either directly or indirectly from claim 63. Claims 1-40 and 55 have been canceled and the pending claims have been previously amended.

Claim 63 has been allowed and the Office has objected to claims 42-46, 56-59, 65 and 67 indicating that they would be allowable if rewritten in independent form. Claims 41, 48, 49-54, 64 and 66 stand rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 7,002,489 awarded to Denker. Claim 47 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Denker in view of United States Patent No. 6,052,598 awarded to Rudrapatna et al. Claims 60-62 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Denker in view of United States Patent Application Publication No. 20060072501 filed in the name of Toshimitsu et al. The applicant respectfully disagrees with the Office and states that the references are insufficient support for rejecting the pending claims because the reference does not describe, suggest or teach each and every element recited in the claims and/or do not render the claims as obvious.

Basis of Office's Error

With regards to the rejection of claims 41, 48, 49-54, 64 and 66 under 35 U.S.C. 102(e), the applicant has at least twice pointed out how the reference relied upon by the office does not include at least two elements that are clearly present in the independent claims 41 and 53. These elements include (a) extrinsically collecting data (so that the mobile device or system does not have to be modified or augmented) and (b) processing the data to overcome the problem of similar sequences for neighboring routes. Denker does not describe, suggest or teach these elements and, these elements are not obvious extensions of Denker.

The Office has rejected the first position alleging that Denker does teach extrinsically collecting the data in Fig. 6, column 3 lines 64-67 and column 4 lines 108. Further, the Office has rejected the second position alleging that Denker does teach processing the data to overcome the problem of similar sequences for neighboring routes in column 3 lines 55-67, column 4 lines 14-17 and column 8 lines 4-14.

The Denker reference repeatedly describes the system as including modifications to the mobile device for storing handoff information, timing information and then transferring this information to the base station for processing. This clearly is not data that is collected extrinsically. Further, Denker is totally focused on estimating where a mobile device is along a known, pre-identified recurrent route. The claims on the other hand focus on correlating a vehicle with the road on which it travels based on cellular communications and being able to distinguish which road the vehicle is travelling. In Denker, the road being traveled is known. The route is selected, the start and end points are identified and Denkar estimates the mobile devices location along that route. The claims focus on identifying the location of the vehicle when the route is not known, and further distinguishing which roads are included in the route.

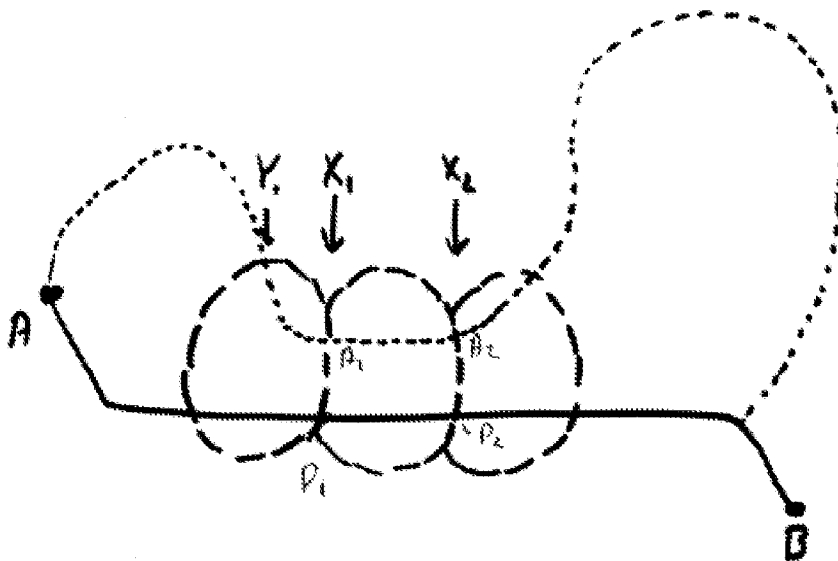
Thus, the applicant is unable to determine how the Office concludes Denker anticipates the claims.

Argument 1: Denker does not extrinsically collect the data from the base stations, controllers or main switching systems as the current invention teaches. Rather, the data is collected by the mobile device as shown in Fig. 6. Further, the system described in Denker requires modifications to be made to the mobile device. This is evidenced in column 3, lines 55-67 which describes the mobile station decoding unique identifiers, associating handoffs with time stamps, and transmitting the information to a base station or storing it internally. At column 4 lines 1-8 this is further described in that upon reaching the destination, the mobile device can transmit the stored information to the base station. Further, on column 6 lines 23-30 describes operation of the system by the mobile station information the system of the beginning and ending travel locations. To provide this capability – which is required for Denker to know what route is being travelled, the mobile station must be modified. Alternatively, Denker describes in column 6 lines 31-38 that the system can determine the route to take and communicate the expected route to the mobile device – again, such a feature would require modifications to the mobile device. Thus, it is appreciated that Denker, at a minimum, does not describe, suggest or teach the extrinsic collection of cellular information simply by monitoring the base station, controllers or main switching systems.

Argument 2: Denker does not process the data to overcome the problem of similar sequences for neighboring routes. Denker is focused on estimating the location of a mobile station along a known, recurrent path. If a user takes an alternate path, the invention described

in Denker would actually fail. Denker would no longer be able to estimate the mobile station's location because the handoff timing information relied on by Denker would no longer be valid and erroneous results would naturally occur. This is clearly evidenced throughout the Denker reference including the title, the abstract, column 4 lines 60-65 (the mobile station is proceeding along a known recurrent route from a known start location), column 6 lines 23-48 (user enters start and end location or identifies route) (the system may identify to the mobile station the recurrent route expected to be used). Furthermore, column 3 lines 55-67 teach that the mobile station assigns a unique identifier to the base station. If two or more roads pass within the coverage areas of several adjacent base stations then all these roads will have the same "unique identifiers" for the area covered by these base stations. Denker only covers the case in which the "unique identifier" or "unique sequence" is indeed unique for the whole area under coverage, consequently Denker does not teach how to handle 2 roads passing through the coverage area of the same base station. The present invention operates to determine which road a vehicle is travelling to overcome the problem of similar sequences for neighboring routes. As such, the present invention could be incorporated into a Denker-like system to alleviate the failure of the Denker-like system if the user takes a different route. Without the present invention, the Denker-like system would fail if the mobile station takes an alternate route. With the present invention, the extrinsically collected data can be processed to identify that the user is not on the expected recurrent route and to identify a new route that the user is actually travelling.

A simple illustration is provided in this paper to help illustrate this concept. The recurrent route in Denker would be the solid line from point A to point B. This route is preselected before the mobile station begins. The dotted line between points A and B illustrate an alternate route. In Denker, if the recurrent route is selected but the user takes the alternate route (dotted line), Denker would fail. At handoff X1 and X2, Denker would estimate that the mobile device is at points P1 and P2 when in fact the mobile station would be at points A1 and A2. However, the present invention can process received data to overcome the error obtained by Denker in concluding the location of the mobile device by being fooled by similar sequences for neighboring routes. By analyzing the data, the present invention can conclude by the data collected at point Y1, that the vehicle is actually traveling on the alternate route and thus, accurately pinpoint the location of the vehicle on that route.



With regards to claims 41 and 53, the currently entered language recites (a) extrinsically collecting data and (b) processing the data to overcome the problem of similar sequences for neighboring routes. These elements are not described, suggested or taught in Denker and as such, the applicant submits that these claims are allowable.

With regards to claim 62, this claim is currently allowed.

With regards to claims 48, 49-52, 54, 64 and 66, these are dependent claims depending from allowable claims 41 or 53 and as such, are also in condition for allowance.

With regards to claims 47-52, 54, 60-62, 64 and 66, these claims depend either directly or indirectly from an allowable or allowed base claim and as such, are also in condition for allowance.

With regards to claims 42-46, 56-59, 65 and 67, these claims depend either directly or indirectly from an allowable or allowed base claim and as such, are also in condition for allowance.

Conclusion

Thus, the applicants have presented arguments and statements showing that the Office has erred in its current rejection of the pending claims. The applicants submit that the independent claims are patentable over Denker and as such, all of the claims should be allowed.

If the Office has any questions or if there are any actions that can be handled through an Examiner's Amendment, the applicant requests the Office to contact the attorney of record using the below-provided contact information.

Respectfully submitted,

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